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33. (Amended twice) A mixture comprising a set of at least six chemical compounds having a common heterocyclic scaffold bearing functionalizable atoms, wherein said set of compounds is represented by one of structures I, II or III:

**PATENT** 

$$\begin{bmatrix} I & & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

wherein for structure I:

each tether moiety T is -NH(R<sup>1</sup>)NH-, -NH(R<sup>1</sup>)O-, -NHR<sup>2</sup>NH-, -NHR<sup>2</sup>SO<sub>2</sub>NH-, -NHR<sup>1</sup>-, -N(R<sup>4</sup>)<sub>2</sub>, -N=N-, O, S, Se, -P(=O)(O)<sub>2</sub>, NH, OR<sup>2</sup>, OR<sup>3</sup>, malonato, pyrrolidinyl, piperidinyl, piperidinylmethylene, piperazinyl, or morpholino;

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wherein R<sup>1</sup> is alkylene; R<sup>2</sup> is aryl; R<sup>3</sup> is H or C<sub>1</sub>-C<sub>10</sub> alkyl; R<sup>4</sup> is alkylenoxy; and each chemical substituent L is, independently, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl, substituted C<sub>2</sub>-C<sub>10</sub> alkenyl, C<sub>2</sub>-C<sub>10</sub> alkynyl, substituted C<sub>2</sub>-C<sub>10</sub> alkynyl, C<sub>4</sub>-C<sub>7</sub> carbocyclic alkyl, substituted C<sub>4</sub>-C<sub>7</sub> carbocyclic alkyl, C<sub>4</sub>-C<sub>10</sub> alkenyl carbocyclic, substituted C<sub>4</sub>-C<sub>10</sub> alkenyl carbocyclic, C<sub>4</sub>-C<sub>10</sub> alkynyl carbocyclic, a nitrogen, oxygen or sulfur containing saturated heterocycle, a substituted nitrogen, oxygen or sulfur containing saturated heterocycle, a substituted benzo-fused heterocycle, a substituted benzo-fused heterocycle, a substituted saturated mixed

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heterocycle; wherein each of the substituent groups is selected from a group consisting of alkyl, alkenyl, alkynyl, aryl, hydroxyl, alkoxy, benzyl, nitro, thiol, thioalkyl, thioalkoxy and halo; or

each chemical substituent L is, independently, substituted  $C_1$ - $C_{10}$  alkyl, wherein each of the substituent groups is selected from a group consisting of alkyl, alkenyl, alkynyl, aryl, hydroxyl, alkoxy, benzyl, nitro, thiol, thioalkyl, and thioalkoxy; or

L is, independently, piperazine, pyridazine, pyrazine, triazine, phthalimido, an ether having 2 to 10 carbon atoms and 1 to 4 oxygen or sulfur atoms, hydrogen, halogen, hydroxyl, thiol, keto, carboxyl, NR<sup>1</sup>R<sup>2</sup>, CONR<sup>1</sup>, amidine, guanidine, glutamyl, nitro, nitrate, nitrile, trifluoromethyl, trifluoromethoxy, NH-alkyl, N-dialkyl, O-aralkyl, S-aralkyl, NH-aralkyl, azido, hydrazino, hydroxylamino, sulfoxide, sulfone, sulfide, disulfide, silyl, a nucleosidic base, an amino acid side chain, or a carbohydrate; and

wherein for structures II and III:

each tether moiety T is -NH(R<sup>1</sup>)NH-, -NH(R<sup>1</sup>)O-, -NHR<sup>2</sup>NH-, -NHR<sup>2</sup>SO<sub>2</sub>NH-, -NHR<sup>1</sup>-, -N(R<sup>4</sup>)<sub>2</sub>, -N=N-, O, S, Se, -P(=O)(O)<sub>2</sub>, NH, QR<sup>2</sup>, QR<sup>3</sup>, malonato, pyrrolidinyl, piperidinyl, piperazinyl, morpholino, imidazolyl, pyrrolyl, pyrazolyl, indolyl, 1H-indolyl,  $\alpha$ -carbolinyl, carbazolyl, phenothiazinyl, phenoxazinyl, tetrazolyl, or triazolyl;

wherein R¹ is alkylene; R² is aryl; R³ is H or C₁-C₁₀ alkyl; R⁴ is alkyleneoxy; and each chemical substituent L is, independently, C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, substituted C₂-C₁₀ alkynyl, C₄-C₁ carbocyclic alkyl, substituted C₄-C₁ carbocyclic alkyl, C₄-C₁₀ alkenyl carbocyclic, substituted C₄-C₁₀ alkenyl carbocyclic, substituted C₄-C₁₀ alkynyl carbocyclic, C₄-C₁₀ alkynyl carbocyclic, C₆-C₁₄ aryl, substituted C₆-C₁₄ aryl, heteroaryl, substituted heteroaryl, a nitrogen, oxygen or sulfur containing heterocycle, a substituted nitrogen, oxygen or sulfur containing heterocycle, a mixed heterocycle, or a substituted mixed heterocycle; wherein each of the substituent groups is selected from a group consisting of alkyl, alkenyl, alkynyl, aryl, hydroxyl, alkoxy, benzyl, nitro, thiol, thioalkyl, thioalkoxy and halo; or